

**Notice of Allowability**

Application No.

10/668,254

Examiner

Tung S. Lau

Applicant(s)

NORITO, YASUJI

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/08/2005.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>See office action</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material  | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/08/2005 has been entered.

### **Information Disclosure Statement**

2. Information Disclosure Statement filed on 08/15/2005 is acknowledged by the examiner; A copy of a signed PTO-1449 attached with this office action.

### **Prior Art Cited**

3. Although the prior art discloses several claimed limitation, for example: Nguyen et al. (U.S. Patent 6188206) discloses a dynamic switching voltage regulator includes a load indicator, power switches, and a controller. The load indicator generates a load signal responsive to different output load conditions of the regulator. The controller receives the load signal and drives the power switches at a first switching frequency. The controller changes the switching frequency to a second frequency in response to a change in the load signal.

### ***Allowable Subject Matter***

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4. Claims 1-22 are allowed.

***Reasons for Allowance***

5. The following is an examiner's statement of reasons for allowance:

Independent claims 1, 3, 7, 11, and 17 contain allowable subject matter. None of the prior art of record shows or fairly suggests the claimed invention.

Regarding claim 1:

The primary reason for the allowance of claim 1 is the inclusion of device for setting a hysteresis characteristic to an input device including when said voltage given to said first port is equal or higher than the threshold and said voltage given to said second port is lower than the threshold, determining said input signal to have the same level as an earlier determination. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claim 2 is allowed due to their dependency on claim 1.

Regarding claim 3:

The primary reason for the allowance of claim 3 is the inclusion of device for setting a hysteresis characteristic to an input device including when said first signal is equal to or higher than said predetermined threshold

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and said second signal is lower than said predetermined thresholds said setting section outputs a same level signal as an earlier output signal. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 4, 5 and 6 are allowed due to their dependency on claim 3.

Regarding claim 7:

The primary reason for the allowance of claim 7 is the inclusion a method for setting a hysteresis characteristic to an input device including said hysteresis characteristic of said input signal is defined as the same as an earlier output signal in a case that said first signal is equal to or higher than said predetermined threshold in the result of said comparing and said second signal is lower than said predetermined threshold in the result of said second comparing. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 8, 9 and 10 are allowed due to their dependency on claim 7.

Regarding claim 11:

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The primary reason for the allowance of claim 11 is the inclusion a device for setting a hysteresis characteristic to an input device including determines a same level as an earlier determination exists when said first voltage is equal to or higher than said predetermined threshold and said second voltage is lower than said predetermined threshold. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 12-16 are allowed due to their dependency on claim 11.

Regarding claim 17:

The primary reason for the allowance of claim 17 is the inclusion a method for setting a hysteresis characteristic to an input device including determining that a same level as an earlier determination exists when said first voltage is equal to or higher than said predetermined threshold and said second voltage is lower than said predetermined threshold. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

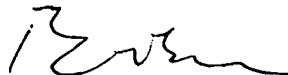
Claims 18-22 are allowed due to their dependency on claim 17.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**BRYAN BUI**  
**PRIMARY EXAMINER**



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